

What is Claimed is:

1. A pivot hinge for pivotally mounting a glass structure to a border frame, comprising:

5 a joint body comprising two spaced apart joint walls defining a securing cavity therebetween for securely sandwiching an edge portion of said glass structure between said joint walls;

a joint hub comprising a joint housing securely mounted between said joint walls within said securing cavity and a supporting shaft having a control portion rotatably extended from said joint housing and an adjusting portion extended out of said securing
10 cavity, and

an angular adjustment arrangement, comprising:

a joint seat, having an adjustment sleeve, adapted for securely mounting to said border frame, wherein said adjusting portion of said supporting shaft is rotatably inserted into said adjustment sleeve in such a manner that said joint body is adapted to angularly
15 move with respect to said joint seat for adjustably aligning said glass structure with respect to said border frame; and

an angular adjustment locker provided at an outer side of said joint seat to securely lock up said supporting shaft within said adjustment sleeve in a rotatably movable manner for retaining an alignment of said glass structure in position with respect
20 to said border frame so as to pivotally mount said glass structure to said border frame.

2. The pivot hinge, as recited in claim 1, wherein said angular adjustment locker comprises at least a locking member and has an adjustment slit longitudinally formed on said joint seat to communicate with said adjustment sleeve and at least a locking hole transversely formed on said outer side of said joint seat through said
25 adjustment slit, wherein said locking member is rotatably engaged with said locking hole to adjustably reduce a width of said adjustment slit so as to lock up said adjusting portion of said supporting shaft within said adjustment sleeve.

3. The pivot hinge, as recited in claim 2, wherein said adjusting portion of said supporting shaft is constructed to have a cog-like cross section to frictionally engage with said adjustment sleeve, so as to ensure said supporting shaft locking up with said joint seat.

5 4. The pivot hinge, as recited in claim 1, wherein each of said joint walls, having a U-shaped, defines an accessing cavity to communicate with said joint seat, wherein said joint seat, having a T-shaped, comprises a central platform defining said adjustment sleeve thereon and two side platforms for securely attaching to said border frame, wherein said central platform is disposed within said accessing cavity of said joint body to rotatably engage said adjusting portion of said supporting shaft with said adjustment sleeve.

15 5. The pivot hinge, as recited in claim 2, wherein each of said joint walls, having a U-shaped, defines an accessing cavity to communicate with said joint seat, wherein said joint seat, having a T-shaped, comprises a central platform defining said adjustment sleeve thereon and two side platforms for securely attaching to said border frame, wherein said central platform is disposed within said accessing cavity of said joint body to rotatably engage said adjusting portion of said supporting shaft with said adjustment sleeve.

20 6. The pivot hinge, as recited in claim 3, wherein each of said joint walls, having a U-shaped, defines an accessing cavity to communicate with said joint seat, wherein said joint seat, having a T-shaped, comprises a central platform defining said adjustment sleeve thereon and two side platforms for securely attaching to said border frame, wherein said central platform is disposed within said accessing cavity of said joint body to rotatably engage said adjusting portion of said supporting shaft with said adjustment sleeve.

30 7. The pivot hinge, as recited in claim 4, wherein said adjustment slit is longitudinally formed along said central platform of said joint seat across said adjustment sleeve and said locking hole is transversely formed on said outer side of said central platform through said adjustment slit such that a size of said adjustment sleeve is substantially reduce to frictionally lock up said adjusting portion of said supporting shaft when said locking member is rotatably engaged with said locking hole to reduce said width of said adjustment slit.

8. The pivot hinge, as recited in claim 5, wherein said adjustment slit is longitudinally formed along said central platform of said joint seat across said adjustment sleeve and said locking hole is transversely formed on said outer side of said central platform through said adjustment slit such that a size of said adjustment sleeve is substantially reduce to frictionally lock up said adjusting portion of said supporting shaft when said locking member is rotatably engaged with said locking hole to reduce said width of said adjustment slit.

9. The pivot hinge, as recited in claim 6, wherein said adjustment slit is longitudinally formed along said central platform of said joint seat across said adjustment sleeve and said locking hole is transversely formed on said outer side of said central platform through said adjustment slit such that a size of said adjustment sleeve is substantially reduce to frictionally lock up said adjusting portion of said supporting shaft when said locking member is rotatably engaged with said locking hole to reduce said width of said adjustment slit.

10. The pivot hinge, as recited in claim 1, wherein said joint seat further has a frame mounting surface for mounting on said border frame and comprises a leveling platform integrally extended from a mid-portion of said frame mounting surface and a level adjusting member, having same thickness of said leveling platform, detachably mounted on a side of said leveling platform to level said frame mounting surface.

11. The pivot hinge, as recited in claim 2, wherein said joint seat further has a frame mounting surface for mounting on said border frame and comprises a leveling platform integrally extended from a mid-portion of said frame mounting surface and a level adjusting member, having same thickness of said leveling platform, detachably mounted on a side of said leveling platform to level said frame mounting surface.

12. The pivot hinge, as recited in claim 6, wherein said joint seat further has a frame mounting surface for mounting on said border frame and comprises a leveling platform integrally extended from a mid-portion of said frame mounting surface and a level adjusting member, having same thickness of said leveling platform, detachably mounted on a side of said leveling platform to level said frame mounting surface.

13. The pivot hinge, as recited in claim 9, wherein said joint seat further has a frame mounting surface for mounting on said border frame and comprises a leveling

platform integrally extended from a mid-portion of said frame mounting surface and a level adjusting member, having same thickness of said leveling platform, detachably mounted on a side of said leveling platform to level said frame mounting surface.

14. The pivot hinge, as recited in claim 2, further comprising a reinforcing member adapted for mounting on a frame track of said border frame to strengthen said frame track by increasing a thickness thereof, wherein said joint seat is securely mounted to said reinforcing member for substantially sandwiching said frame track therebetween so as to rigidly mount said joint seat to said border frame.

15. The pivot hinge, as recited in claim 6, further comprising a reinforcing member adapted for mounting on a frame track of said border frame to strengthen said frame track by increasing a thickness thereof, wherein said joint seat is securely mounted to said reinforcing member for substantially sandwiching said frame track therebetween so as to rigidly mount said joint seat to said border frame.

16. The pivot hinge, as recited in claim 9, further comprising a reinforcing member adapted for mounting on a frame track of said border frame to strengthen said frame track by increasing a thickness thereof, wherein said joint seat is securely mounted to said reinforcing member for substantially sandwiching said frame track therebetween so as to rigidly mount said joint seat to said border frame.

17. The pivot hinge, as recited in claim 13, further comprising a reinforcing member adapted for mounting on a frame track of said border frame to strengthen said frame track by increasing a thickness thereof, wherein said joint seat is securely mounted to said reinforcing member for substantially sandwiching said frame track therebetween so as to rigidly mount said joint seat to said border frame.

18. The pivot hinge, as recited in claim 9, wherein said joint housing, which is securely mounted between said joint walls, has an axial sleeve to rotatably receive said control portion of said supporting shaft and at least two radial slots radially extended to communicate with said axial sleeve, wherein said joint housing further comprises at least two ball-shaped driving members rotatably disposed within said radial slots respectively to ensure said supporting shaft in a rotatably movable manner within said axial sleeve.

19. The pivot hinge, as recited in claim 13, wherein said joint housing, which is securely mounted between said joint walls, has an axial sleeve to rotatably receive said control portion of said supporting shaft and at least two radial slots radially extended to communicate with said axial sleeve, wherein said joint housing further comprises at least
5 two ball-shaped driving members rotatably disposed within said radial slots respectively to ensure said supporting shaft in a rotatably movable manner within said axial sleeve.

20. The pivot hinge, as recited in claim 17, wherein said joint housing, which is securely mounted between said joint walls, has an axial sleeve to rotatably receive said control portion of said supporting shaft and at least two radial slots radially extended to
10 communicate with said axial sleeve, wherein said joint housing further comprises at least two ball-shaped driving members rotatably disposed within said radial slots respectively to ensure said supporting shaft in a rotatably movable manner within said axial sleeve.